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EXAMINER

LAVILLA, MICHAEL E

ART UNIT

PAPER NUMBER

1775

DATE MAILED: 07/31/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/045,054

Applicant(s)

MAZE ET AL.

Examiner

Michael La Villa

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 16 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-71 is/are pending in the application.
- 4a) Of the above claim(s) 10-71 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - (a) Claims 1-9, drawn to a coating composition, classified in class 106, subclass 1.05+.
 - (b) Claims 10, 11, 25-27, 39-41, 55, 56, 70, and 71, drawn to a method of making a coated substrate, classified in class 427, subclass 372.2+.
 - (c) Claims 12-24, 28-38, 42-54, and 57-69, drawn to a coated substrate having zinc alloy flake containing coating, classified in class 428, subclass 658.
2. The inventions are distinct, each from the other because of the following reasons:
3. Inventions of Group II and of Group III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made by an alternative process that entails laminating an already cured film on a substrate to obtain the claimed article.
4. Inventions of Group I and of Group II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in

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a materially different process of using that product (MPEP § 806.05(h)). In the instant case the composition of Group I can be used as a resin filler or as a molding composition.

5. Inventions of Group I and of Group III are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as a composition that can be used as a molding composition or as a resin filler composition and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.
6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

7. Because these inventions are distinct for the reasons given above and the search required for each of the groups is not required for each of the other groups, restriction for examination purposes as indicated is proper.
8. This application contains claims directed to the following patentably distinct species of the claimed invention: Applicant's claimed methods and articles of Groups II and III pertain to various materials in combination with the claimed zinc flake composition, namely, silane binding agent, hexavalent chromium providing substance, titanate polymer, and silica substance.
9. Were applicant to have elected Groups II or III, Applicant would have been required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, Claims 10 and 11 are generic.
10. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.
11. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

12. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.
13. During a telephone conversation with Mr. Bandy on 11 July 2003 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-9. Affirmation of this election must be made by applicant in replying to this Office action. Claims 10-71 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention. It was explained to Mr. Bandy that the previous restriction requirement, as set forth in the Office Action mailed on 3 June 2003, was being withdrawn in favor of the restriction requirement set forth above. Mr. Bandy gave authorization to cancel non-elected claims upon allowance of the claims under examination.
14. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

15. The following is a quotation of the second paragraph of 35 U.S.C. 112:
16. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
17. Claims 3 and 5-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
18. Regarding Claim 3, it is unclear what is being claimed when zinc, tin, and aluminum are all present in the same zinc alloy in flake form. It is unclear whether the weight percent basis set forth in Claim 3 is with respect to zinc and aluminum or between zinc and tin or with respect to the overall alloy.
19. Regarding Claim 5, it is unclear what is meant by the phrase "on a metals basis." Does this refer to metal in zinc alloy flake or to metal in the paste, which could encompass additional metal to the metal of the flake?
20. Regarding Claim 6, it is unclear what is meant by the phrase "both basis 100 weight percent of said paste." Previously, in this claim, the weight percentage basis is described as being with respect to the alloy. Hence, it is unclear what is being claimed as having a basis of 100 weight percent of the paste.
21. Regarding Claim 7, it is unclear what is meant by the phrase "contains from about 4 to about 5 weight percent of said aluminum, both basis 100 weight percent of said paste." The previous mention of "said aluminum" was made in reference to aluminum of the zinc alloy flake. Hence, it is unclear whether this

claim demands that the alloy is to comprise 4 to 5 weight percent aluminum, that the paste is to comprise 4 to 5 weight percent aluminum with all of it being in the alloy flake composition, or that the paste is to comprise 4 to 5 weight percent aluminum with at least some, but not necessarily all, being in the alloy flake composition.

22. Regarding Claim 8, it is unclear what is meant by the phrase "STAPA 4ZnAl7." It appears to signify a trademark-like designation which would be indefinite since its meaning may vary over time.

23. Regarding Claim 9, it is unclear what is meant by the phrase "said zinc alloy in flake form is an alloy having at least about 90 percent of the flake particles with longest dimension of less than about 15 microns" Why is the alloy as opposed to the flake described as having a physical length dimension? Does this mean that the composition of the flake is not uniform and lacks alloy composition for part of its composition? It is unclear what is meant by the phrase "and said composition further contains non-alloyed particulate metal." Does this limitation mean that the paste has metal component that is different from the already claimed zinc alloy flake or does it mean that the flake itself contains metal component that is different from the already claimed zinc alloy composition?

Claim Rejections - 35 USC § 103

24. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

25. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

26. Claims 1-5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Orr USP 4,620,873. Orr teaches a zinc flake containing paint composition that confers corrosion resistance on a substrate to be coated. Orr suggests that the zinc flake may comprise zinc alloying ingredients of magnesium or aluminum. Since the flakes are described as zinc flakes, it would be expected that the amount of alloying magnesium or aluminum is less than 50 weight percent. See Orr (col. 2, lines 5-34; col. 3, lines 42-59; col. 6, lines 5-21; col. 7, line 25 through col. 9, line 15. Orr does not exemplify alloying with magnesium and/or aluminum, but teaches that effective flake compositions may contain these ingredients. It would have been obvious to one of ordinary skill in the art at the time of the invention to fabricate the zinc flake with minor amounts of magnesium and/or aluminum as Orr teaches that effective flake materials may contain these alloying ingredients. With respect to the paste, Orr teaches that the a amount of zinc

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flake may range from 50 to 90 weight percent and that the liquid content may range from 5 to 15 weight percent. It would have been obvious to one of ordinary skill in the art at the time of the invention to fabricate a paste with 85 weight percent zinc as Orr teaches that this amount of zinc flake provides effective coating material. It would have been obvious to one of ordinary skill in the art at the time of the invention to fabricate a paste with from 4 to 8 weight percent liquid as Orr teaches that this amount of liquid provides an effective coating material. Orr teaches that the flake is 300 mesh or less which would be expected to be of sizes less than the claimed sizes of Claim 9. Orr teaches that non-alloyed metal powders may be added to the composition as cathodically active metals. It would have been obvious to one of ordinary skill in the art at the time of the invention to fabricate the composition of Orr with non-alloyed metal powder in order to provide for cathodically active metal in the coating composition.

27. Claims 1, 2, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orr USP 4,620,873 in view of Ishijima et al. USP 4,318,747. Orr teaches a zinc flake containing paint composition that confers corrosion resistance on a substrate to be coated. Orr suggests that the zinc flake may comprise zinc alloying ingredients of magnesium and/or aluminum. Since the flakes are described as zinc flakes, it would be expected that the amount of alloying magnesium or aluminum is less than 50 weight percent. See Orr (col. 2, lines 5-34; col. 3, lines 41-59; col. 6, lines 5-21; col. 7, line 25 through col. 9, line 15. Orr does not exemplify alloying with magnesium and/or aluminum, but teaches that

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effective flake compositions may contain these ingredients. Ishijima teaches using a zinc/aluminum alloy flake as a paint pigment. See Ishijima et al. (Abstract; col. 2, lines 29-50; col. 3, lines 15-43; col. 3, line 66 through col. 4, line 18; and Example 9). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the zinc/aluminum flake of Ishijima et al. with the composition of Orr in order to provide the composition of Orr with metal flakes that provide good gloss properties. Orr teaches that the flake is 300 mesh or less which would be expected to be of sizes less than the claimed sizes of Claim 9, and Ishijima teaches that the size is less than 5 microns, also less than the claimed sizes. Orr teaches that non-alloyed metal powders may be added to the composition as cathodically active metals. It would have been obvious to one of ordinary skill in the art at the time of the invention to fabricate the composition of Orr in view of Ishijima et al. with non-alloyed metal powder in order to provide for cathodically active metal in the coating composition.

Allowable Subject Matter

28. Claims 6-8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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29. Neither the reviewed prior art nor the prior art of record teaches or suggests the claimed subject matter of Claims 6-8. Particularly, the claimed flake composition in combination with the claimed paste composition is not taught or suggested.

CONCLUSION

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael La Villa whose telephone number is (703) 308-4428. The examiner can normally be reached on Monday through Friday.

31. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (703) 308-3822. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

32. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Michael La Villa
July 28, 2003

